

CLAIMS

What is claimed is:

1. A display method, in which a plurality of universal serial bus (USB) systems share one display device, and USB devices, connected to the display device, and USB devices, connected to the plurality of USB systems, are shared, the method comprising:

while output of a first predetermined USB system, among the plurality of USB systems, is transmitted to the display device, providing a predetermined sharing menu, with sharing menu items, to select a USB device to be shared and selecting a second predetermined USB system to connect to the selected USB device;

if one of the sharing menu items is selected, disabling a first driver, which corresponds to the shared USB device in the first USB system;

buffering information transmitted from the shared USB device in the display device; and

transmitting the information, which is buffered in the display device, to a second driver, which corresponds to the shared USB device, in the second USB system.

2. The method of claim 1, wherein if the shared USB device is a keyboard or mouse, an input signal of the display device is switched so that output of the second USB system is transmitted to the display device.

3. The method of claim 1, further comprising releasing the shared USB device from the second USB system.

4. The method of claim 3, wherein the releasing comprises:

while output of the second USB system are transmitted to the display device, providing a predetermined releasing menu, with releasing menu items, to select a USB device to be released;

if one of the releasing menu items is selected, enabling the first driver, which corresponds to the shared USB device, in the first USB system; and

transmitting information, which is transmitted from the USB device, to the first driver, which corresponds to the USB device, in the first USB system through the display device.

5. The method of claim 4, wherein if the released USB device is a keyboard or mouse, an input signal of the display device is switched so that output of the first USB system are transmitted to the display device.

6. A display apparatus, in which in a plurality of universal serial bus (USB) systems sharing one display device are included, and USB devices connected to the display device and USB devices connected to the plurality of USB systems are shared, comprises:

a relay unit included in the display device, while output of a first predetermined USB system, among the plurality of USB systems is transmitted to the display device, the relay unit selects to share the USB device being used in the USB system with a second predetermined USB system, and if a first driver, which corresponds to the shared USB device in the first USB system is disabled, the relay unit buffers information transmitted from the shared USB device in the display device and transmits the information buffered in the display device to a second driver, which corresponds to the shared USB device in the second USB system.

7. The apparatus of claim 6, wherein if the shared USB device is a keyboard or mouse, an input signal of the display device is switched so that output of the second USB system are transmitted to the display device.

8. The apparatus of claim 6, wherein if the USB device is released from the second USB system and if the first driver, which corresponds to the shared USB device, in the first USB system is enabled, the relay unit transmits the information transmitted from the USB device to the first driver, which corresponds to the USB device, in the first USB system.

9. A display method, comprising:
opening a sharing program stored in a first Universal Serial Bus (USB) host;
selecting a USB device, connected the first USB host, to share the selected USB device with a second USB host;
determining whether an ID of the selected USB device exists, and if the ID exists,
disabling drivers in the first USB host corresponding to the selected USB device;
transmitting data from the selected USB device to the second USB host; and
operating drivers, associated with the second USB host, corresponding to the selected USB device according to the transmitted data.

10. The display method according to claim 9, wherein the opening comprises clicking on a mouse button.

11. The display method according to claim 9, wherein the selecting comprises:
displaying USB devices that can be shared;
selecting the USB device; and
selected the second USB host.

12. The display method according to claim 9, further comprising display switching from an output of the first USB host to an output of the second USB host.

13. The display method according to claim 9, wherein the determining comprises:
transmitting an ID of the selected USB device to a control unit of a relay unit; and
determining that the ID exists.

14. The display method according to claim 9, wherein the transmitting comprises:
recording the transmitted data in a buffer;
decoding the recorded data; and
transmitting the decoded data to the drivers, associated with the second USB host, corresponding to the selected USB device.

15. The display method according to claim 9, further comprising releasing the selected USB device from the second USB host.

16. The display method according to claim 15, wherein the releasing comprises display switching from an output of the second USB host to an output of the first USB host.

17. The display method according to claim 15, wherein the releasing comprises:
determining whether the ID of the released USB device exists;
enabling a driver, associated with the first USB host, corresponding to the released USB device.

18. A display apparatus, comprising:
 - a first Universal Serial Bus (USB) system having a first down port;
 - a USB bus system having a second down port; and
 - a shared USB device displaying output from the first and second USB systems, having a USB hub, including an upstream port, and a relay unit relaying data transmission when the USB device is shared, including a second buffer, wherein
 - the upstream port is connected to the first down port, and
 - the second buffer is connected to the second down port.
19. The display apparatus according to claim 18, wherein the first USB system is a first personal computer.
20. The display apparatus according to claim 19, wherein when the first personal computer is used, the shared USB device displays an output of the personal computer.
21. The display apparatus according to claim 19, wherein the first USB system includes a first USB host.
22. The display apparatus according to claim 21, wherein the first USB host controls USB communication between the first personal computer and first devices connected to the first personal computer.
23. The display apparatus according to claim 22, wherein the first USB host includes a hub relaying data of the first devices through the first down port.
24. The display apparatus according to claim 19, wherein the second USB system is a second personal computer.
25. The display apparatus according to claim 24, wherein when the personal computer is used, the USB device displays an output of the second personal computer.
26. The display apparatus according to claim 24, wherein the second USB system includes a second USB host.

27. The display apparatus according to claim 26, wherein the second USB host controls USB communication between the second personal computer and second devices connected to the second personal computer.

28. The display apparatus according to claim 27, wherein the second USB host includes a hub relaying data of the second devices through the second down port.

29. The display apparatus according to claim 18, wherein the shared USB device is a monitor.

30. The display apparatus according to claim 29, wherein the monitor comprises:
an image signal input unit to receive an image signal;
a signal processing unit to perform signal processing of the image signal;
a display unit to display the image signal; and
a monitor control unit to control the image signal input unit, the signal processing unit, and the display unit.

31. The display apparatus according to claim 18, wherein the USB hub comprises:
a control unit; and
third down ports, wherein the control unit controls third down ports enabling transmission of a signal from a third device to the upstream port.

32. The display apparatus according to claim 18, wherein the relay unit comprises:
a first buffer to buffer the signal transmitted from the USB device; and
a control unit, wherein the control unit checks the identification of the USB device and transmits the buffered signal to the second buffer.